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10/534,020	06/13/2006	Shoichi Yamaguchi	120736-00104	1369

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EXAMINER

TOWNS, BRITTANY E

ART UNIT	PAPER NUMBER
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3749

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,020	Applicant(s) YAMAGUCHI, SHOICHI	
	Examiner BRITTANY TOWNS	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>(05/05/2005) and (06/16/2006)</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Schneider (U.S. Patent No. 4,295,415).

Regarding Claim 1, Schneider teaches a duct system comprising: a first duct that guides hot air downward from a hot air generator disposed thereabove and includes a plurality of hot air supply openings at intermediate positions thereof (e.g. a duct is capable of supplying hot air into an enclosure through controlled openings positioned on the duct, Schneider: col. 3, lines 3-11; Figure 2); a second duct that guides cold air upward from a cold air generator disposed therebelow and includes a plurality of cold air supply openings at intermediate positions thereof (e.g. another duct is capable of supplying cold air into the enclosure through controlled openings, Schnedier: col. 3, lines 3-11) and a third duct that connects the hot air generator and the cold air generator and includes a plurality of return openings at intermediate positions thereof (e.g. center wall ducts are provided with controlled openings along

positions of the duct. The center wall is capable of being connected to a hot storage and a cold storage of the enclosure, Schneider: col. 3, lines 3-11).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider (U.S. Patent No. 4,295,415) in view of Daddis Jr et al (U.S. Patent No. 69,701,735).

Regarding Claim 2, Schneider teaches a duct system with a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct including a shared supply duct that connects a supply side of the hot air generator and a supply side of the cold air generator (e.g. a duct is capable of supplying hot or cold air into the enclosure, Schnedier: col.). However, Schnedier does not teach a partition means for dividing the supply duct. It is noted that Daddis Jr et al does teach a first duct and the second duct are produced by dividing the shared supply duct using a partitioning means (e.g. shelves positioned along the supply duct are capable of dividing the air being supplied to enter into each

independent shelves of the display case, Daddis Jr et al: col. 2, lines 42-53). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a duct system that teaches a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct taught by Schneider with a supply duct with a partitioning means taught by Daddis Jr. et al to create a supply duct which can share hot and cold air to minimize the amount of space used in the display case.

Regarding Claim 3, Schneider in view of Daddis Jr. et al teaches a duct system with a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct including a shared supply duct that connects a supply side of the hot air generator and a supply side of the cold air generator by partitioning means where the partitioning means is a damper or a partitioning plate (e.g. a display shelf used for displaying the product, Daddis Jr. et al: col. 2, lines 42-53). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a duct system that teaches a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct taught by Schneider with a supply duct with a partitioning means taught by Daddis Jr. et al to create a supply duct which can share hot and cold air to minimize the amount of space used in the display case.

Regarding Claim 4, Schneider in view of Daddis Jr. et al teaches a duct system with a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct including a shared supply duct that connects a supply side of the hot air generator and a supply side of the cold air generator by partitioning means where the hot air generator and the cold air generator respectively include backflow preventing mechanisms that block an air flow in a reverse direction (e.g. the air inlet can prevent a backflow of air from an air mover can prevent backflow of air).

Regarding Claim 5, Schneider teaches a duct system with comprising: a first duct that guides hot air from the hot air generator downward and includes a plurality of hot air supply openings at intermediate positions thereof (e.g. a duct is capable of supplying hot air into an enclosure through controlled openings positioned on the duct, Schneider: col. 3, lines 3-11; Figure 2); a second duct that guides cold air from the cold air generator upward and includes a plurality of cold air supply openings at intermediate positions thereof (e.g. another duct is capable of supplying cold air into the enclosure through controlled openings, Schneider: col. 3, lines 3-11); a third duct that connects the hot air generator and the cold air generator and includes a plurality of return openings at intermediate positions thereof (e.g. center wall ducts are provided with controlled openings along positions of the duct. The center wall is

capable of being connected to a hot storage and a cold storage of the enclosure, Schneider: col. 3, lines 3-11). However, Schnedier does not teach a cold air generator at the upper part of a storage, hot air generator disposed on the upper part of the storage, and a housing for storage space. It is noted that Daddis Jr et al does teach a cold air generator disposed at a lower part of the storage apparatus (e.g. a cooling element with an air mover create a cold air generator positioned at the bottom of the display case, Daddis Jr. et al: col. 3, lines 13-22) and a housing that constructs a storage space to which at least one of the hot air and the cold air is supplied by at least one of the first duct and the second duct and from which internal air is recovered by the third duct (e.g. the display case enclosure has a supply duct for which returned cooled air enters through air outlets, Daddis Jr. et al: col. 3, lines 1—22). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a duct system that teaches a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct taught by Schneider with a supply duct with a partitioning means taught by Daddis Jr. et al to create a supply duct which can share hot and cold air to minimize the amount of space used in the display case.

Regarding Claim 6, Schneider in view of Daddis Jr. et al teaches a storage system with a first duct for supplying hot air, a second duct for supplying cold air, and

a third duct for connecting the first duct and second with a cold air generator disposed at the bottom including a shared supply duct that connects a supply side of the hot air generator and a supply side of the cold air generator (e.g. a duct is capable of supplying hot or cold air into the enclosure, Schnedier: col.) and the first duct and the second duct are produced by dividing the shared supply duct using a partitioning means (e.g. shelves positioned along the supply duct are capable of dividing the air being supplied to enter into each independent shelves of the display case, Daddis Jr et al: col. 2, lines 42-53). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a duct system that teaches a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct taught by Schneider with a supply duct with a partitioning means taught by Daddis Jr. et al to create a supply duct which can share hot and cold air to minimize the amount of space used in the display case.

Regarding Claim 7, Schneider teaches a duct system with a first duct that guides hot air from the hot air generator downward and includes a plurality of hot air supply openings at intermediate positions thereof (e.g. a duct is capable of supplying hot air into an enclosure through controlled openings positioned on the duct, Schneider: col. 3, lines 3-11; Figure 2); a second duct that guides cold air from the cold air generator 5 upward and includes a plurality of cold air supply openings at

intermediate positions thereof (e.g. another duct is capable of supplying cold air into the enclosure through controlled openings, Schnedier: col. 3, lines 3-11); a third duct that connects the hot air generator and the cold air generator and includes a plurality of return openings at intermediate positions thereof (e.g. center wall ducts are provided with controlled openings along positions of the duct. The center wall is capable of being connected to a hot storage and a cold storage of the enclosure, Schneider: col. 3, lines 3-11). However, Schneider does not teach a cold air generator at the bottom part of storage and a display shelf for displaying products. It is noted that Daddis Jr et al does teach a cold air generator disposed at a lower part of the storage apparatus; a display shelf for displaying products that is connected to at least one of the plurality of hot air supply openings and the plurality of cold air supply openings and includes blow openings that blow out at least one of the hot air and the cold air via the display shelf (e.g. a display shelf has a supply duct at the base of the shelf that supplied air to the products displayed on the shelf, Daddis Jr et al: col. 2, lines 42-53). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a duct system that teaches a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct taught by Schneider with a supply duct with a partitioning means taught by Daddis Jr. et al to create a supply

duct which can share hot and cold air to minimize the amount of space used in the display case.

Regarding Claim 8, Schneider in view of Daddis Jr. et al teaches a storage system with a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second with a cold air generator disposed at the bottom with a display shelf where the display shelf is connected to one of the plurality of hot air supply openings and one of the plurality of cold air supply openings and blows out air that is a mixture of the hot air and the cold air from the blow openings (e.g. the display shelf has an air outlet for supplying air to the shelf from the supply and return duct, Daddis Jr et al: col. 3, lines 39-45). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a duct system that teaches a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct taught by Schneider with a supply duct with a partitioning means taught by Daddis Jr. et al to create a supply duct which can share hot and cold air to minimize the amount of space used in the display case.

Regarding Claim 9, Schneider in view of Daddis Jr. et al teaches a storage system with a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second with a cold air generator

disposed at the bottom with a display shelf where the display shelf includes suction holes and is connected to one of the plurality of return openings so that air is discharged via the display shelf (e.g. the display shelf has an opening for returning used air into the duct, Daddis Jr et al: col. 3, lines 39-45). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified a duct system that teaches a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct taught by Schneider with a supply duct with a partitioning means taught by Daddis Jr. et al to create a supply duct which can share hot and cold air to minimize the amount of space used in the display case.

Regarding Claim 10, Schneider in view of Daddis Jr. et al teaches a storage system with a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second with a cold air generator disposed at the bottom with a display shelf including a housing for constructing a storage space to which at least one of the hot air and the cold air is supplied via the display shelf and from which internal air is recovered via the third duct (e.g. a display shelf has a supply duct at the base of the shelf that supplied air to the products displayed on the shelf, Daddis Jr et al: col. 2, lines 42-53). Hence, it would have been obvious to one of ordinary skill in the art at the time of the invention to have

modified a duct system that teaches a first duct for supplying hot air, a second duct for supplying cold air, and a third duct for connecting the first duct and second duct taught by Schneider with a supply duct with a partitioning means taught by Daddis Jr. et al to create a supply duct which can share hot and cold air to minimize the amount of space used in the display case.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRITTANY TOWNS whose telephone number is (571)270-1181. The examiner can normally be reached on Monday-Friday 7:30-5:00, 1st Friday in biweek off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. T./
Examiner, Art Unit 3749

/Steven B. McAllister/

Supervisory Patent Examiner, Art Unit 3749